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## [54] TOUCH CONTROL SYSTEM FOR USE WITH A DISPLAY PANEL OR OTHER TOUCH CONTROLLED DEVICE

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U.S. Cl. ...... 178/19; 367/907 [52] Field of Search ...... 178/18, 19, 20; 340/365 R, 365 A, 706, 709, 712; 367/138, 117,

127, 907, 71, 72; 333/142; 310/313 A, 313 B, 313 C, 313 D

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**ABSTRACT** 

Apparatus for use in a touch control system capable of recognizing touch positions along a predetermined coordinate axis on a touch surface comprises a substrate having such a surface that is capable of propagating surface acoustic waves and is so characterized that a touch thereon causes a perturbation of a surface wave propagating through the region of the touch. An input transducer coupled to that surface launches a multiplicity of different frequency SAW's along a first path on the surface. A dispersive array of SAW reflective elements formed along a first path on the substrate surface derives a plurality of different frequency wave components from the launched SAW. Each derived component is reflected from a different location along the array. The components are directed across the touch surface in a progression of paths transverse to and intersecting the coordinate axis so that each path corresponds to a component of a predetermined different frequency CODE 13TS.

## 12 Claims, 6 Drawing Figures

